



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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Governor

*Lori F. Kaplan*

Commissioner

100 North Senate Avenue

P. O. Box 6015

Indianapolis, Indiana 46206-6015

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[www.IN.gov/idem](http://www.IN.gov/idem)

## **NEW SOURCE CONSTRUCTION PERMIT and MINOR SOURCE OPERATING PERMIT OFFICE OF AIR QUALITY**

**Vintage Trailers, Ltd.  
4660 Pine Creek Road  
Elkhart, Indiana 46516**

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operation Permit No.: MSOP 039-16783-00575

Issued by: Original signed by  
Paul Dubenetzky, Branch Chief  
Office of Air Quality

Issuance Date: March 10, 2003

Expiration Date: March 10, 2008

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## SECTION A

## SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in Conditions A.1 and A.2 are descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

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The Permittee owns and operates a stationary custom recreational vehicle trailer manufacturing source.

Authorized Individual:	President
Source Address:	4660 Pine Creek Road, Elkhart, Indiana 46516
Mailing Address:	4660 Pine Creek Road, Elkhart, Indiana 46516
General Source Phone:	(574) 522-2261
SIC Code:	3792
County Location:	Elkhart
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Minor Source Operating Permit Minor Source, under PSD Rules; Minor Source, Section 112 of the Clean Air Act

### A.2 Emissions Units and Pollution Control Equipment Summary

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This stationary source is approved to construct and operate the following emissions units and pollution control devices:

- (a) One (1) frame coating booth, identified as EU-01, constructed in 1992 and re-constructed in 2003, equipped with an airless spray system and dry filters for particulate control, exhausting to Stacks SV-01 through SV-03, capacity: 0.75 trailer frames per hour.
- (b) One (1) fabrication and final finish operation, identified as EU-02, constructed in 1992, using caulk guns and aerosol cans to apply materials, capacity: 0.75 travel trailers per hour.
- (c) Sixteen (16) radiant tube heaters, identified as H-01 through H-16, constructed in 1992, exhausting to Stacks H-01 through H-16, heat input capacity: 0.1 million British thermal units per hour, each.
- (d) Three (3) Metal Inert Gas (MIG) welding stations, constructed in 1992, capacity: 0.35 spools of wire per hour, each, and 9.1 pounds of wire per hour, total.
- (e) One (1) Oxyacetylene welding station, constructed in 1992, capacity: 1.65 pounds of metal consumed per hour.
- (f) One (1) plasma cutter, constructed in 1992, capacity: 120 inches of one-eighth inch thick cuts in metal per hour.
- (g) One (1) woodworking and metal working operation, identified as F-01, constructed in 1992, with a capacity of 200.9 board feet (502.25 pounds) per hour, including:
  - (1) three (3) ten inch table saws, equipped with three (3) bag filters;

- (2) two (2) chop saws; and
- (3) hand-held saws, grinders and drills.

## GENERAL CONDITIONS

## B.1 Permit No Defense [IC 13]

## B.2 Definitions

### B.3 Effective Date of the Permit [IC13-15-5-3]

#### B.4 Revocation of Permits [326 IAC 2-1.1-9(5)]

## B.5 Permit Term and Renewal [326 IAC 2-6.1-7(a)] [326 IAC 2-1.1-9.5]

## B.6 Modification to Permit [326 IAC 2]

## B.7 Minor Source Operating Permit [326 IAC 2-6.1]

(1) If the Affidavit of Construction verifies that the facilities covered in this Construction Permit were constructed as proposed in the application, then the facilities may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.

- (2) If actual construction of the emission units differs from the construction proposed in the application, the source may not begin operation until the permit has been revised pursuant to 326 IAC 2-6.1-6 and an Operation Permit Validation Letter is issued.
- (b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
- (c) Upon receipt of the Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section, the Permittee shall attach it to this document.
- (d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-1.1-7(Fees).

**B.8 Annual Notification [326 IAC 2-6.1-5(a)(5)]**

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- (a) Annual notification shall be submitted to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.
- (b) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.
- (c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 1 of each year to:  
  
Compliance Branch, Office of Air Quality  
Indiana Department of Environmental Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, IN 46206-6015
- (d) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

**B.9 Preventive Maintenance Plan [326 IAC 1-6-3]**

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- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each emissions unit:
  - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

The PMP extension notification does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) A copy of the PMP's shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMP whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

**B.10 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]**

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- (a) Permit revisions are governed by the requirements of 326 IAC 2-6.1-6.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:  
  
Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015  
  
Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1.
- (c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

**B.11 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)] [IC 13-14-2-2]**

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Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, when applicable) U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;

- (c) Inspect, at reasonable times, any processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

**B.12 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]**

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Pursuant to [326 IAC 2-6.1-6(d)(3)] :

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAQ, Permits Branch, within thirty (30) days of the change.
- (b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).
- (c) IDEM, OAQ, shall issue a revised permit.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

**B.13 Annual Fee Payment [326 IAC 2-1.1-7]**

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- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing.
- (b) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, I/M & Billing Section), to determine the appropriate permit fee.

## SECTION C

## SOURCE OPERATION CONDITIONS

<b>Entire Source</b>
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**C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [40 CFR 52, Subpart P] [326 IAC 6-3-2]**

- (a) Pursuant to 40 CFR 52, Subpart P, the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.
- (b) Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emissions rate from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

**C.2 Permit Revocation [326 IAC 2-1.1-9]**

Pursuant to 326 IAC 2-1.1-9 (Revocation of Permits), this permit to construct and operate may be revoked for any of the following causes:

- (a) Violation of any conditions of this permit.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

**C.3 Opacity [326 IAC 5-1]**

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

**C.4 Fugitive Dust Emissions [326 IAC 6-4]**

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

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Elkhart, Indiana  
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**C.5 Stack Height [326 IAC 1-7]**

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The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted by using ambient air quality modeling pursuant to 326 IAC 1-7-4.

**C.6 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]**

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- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
  - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
  - (2) If there is a change in the following:
    - (A) Asbestos removal or demolition start date;
    - (B) Removal or demolition contractor; or
    - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management  
Asbestos Section, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by an "authorized individual" as defined by 326 IAC 2-7-1(34).

- (e) **Procedures for Asbestos Emission Control**  
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

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- (f) **Indiana Accredited Asbestos Inspector**  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited, pursuant to the provisions of 40 CFR 61, Subpart M, is federally enforceable.

## Testing Requirements

### C.7 Performance Testing [326 IAC 3-6]

- (a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date.

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual date.
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ, not later than forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

## Compliance Requirements [326 IAC 2-1.1-11]

### C.8 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U.S. EPA.

## Compliance Monitoring Requirements

### C.9 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60, Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

### C.10 Actions Related to Noncompliance Demonstrated by a Stack Test

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee

shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected emissions unit while the response actions are being implemented.

- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1.

## **Record Keeping and Reporting Requirements**

### **C.11 Malfunctions Report [326 IAC 1-6-2]**

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Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.
- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

### **C.12 Emission Statement [326 IAC 2-6]**

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- (a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that must be received by April 15 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission statement shall meet the following requirements:
    - (1) Indicate estimated actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);
    - (2) Indicate estimated actual emissions of other regulated pollutants (as defined by 326

IAC 2-7-1) from the source, for purposes of Part 70 fee assessment.

- (b) The annual emission statement covers the twelve (12) consecutive month time period starting December 1 and ending November 30. The annual emission statement must be submitted to:

Indiana Department of Environmental Management  
Technical Support and Modeling Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

- (c) The annual emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

**C.13 General Record Keeping Requirements [326 IAC 2-6.1-5]**

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- (a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented when operation begins.

**C.14 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]**

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- (a) Reports required by conditions in Section D of this permit shall be submitted to:
- Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015
- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) Unless otherwise specified in this permit, any report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The reports do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

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## SECTION D.1

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

- (a) One (1) frame coating booth, identified as EU-01, constructed in 1992 and re-constructed in 2003, equipped with an airless spray system and dry filters for particulate control, exhausting to Stacks SV-01 through SV-03, capacity: 0.75 trailer frames per hour.
- (b) One (1) fabrication and final finish operation, identified as EU-02, constructed in 1992, using caulk guns and aerosol cans to apply materials, capacity: 0.75 travel trailers per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards

#### D.1.1 Volatile Organic Compounds (VOC) Limitations [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9, the owner or operator shall not allow the discharge into the atmosphere of VOC in excess of three and five-tenths (3.5) pounds of VOC per gallon of coating, excluding water, as delivered to the applicators, for air dried or forced warm air dried coatings applied to metal substrates.

#### D.1.2 Volatile Organic Compound (VOC) Limitations, Clean-up Requirements [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9 (f), all solvents sprayed from the application equipment of EU-01 and EU-02 during cleanup or color changes of materials applied to metal substrates shall be directed into containers. Said containers shall be closed as soon as the solvent spraying is complete. In addition, all waste solvent shall be disposed of in such a manner that minimizes evaporation.

#### D.1.3 Particulate [326 IAC 6-3-2(d)]

- (a) Particulate from the one (1) frame coating booth, identified as EU-01, shall be controlled by a dry particulate filter, and the Permittee shall operate the control device in accordance with manufacturer's specifications.
- (b) If overspray is visibly detected at the exhaust or accumulates on the ground, the Permittee shall inspect the control device and do either of the following no later than four (4) hours after such observation:
  - (1) Repair control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground.
  - (2) Operate equipment so that no overspray is visibly detectable at the exhaust or accumulates on the ground.
- (c) If overspray is visibly detected, the Permittee shall maintain a record of the action taken as a result of the inspection, any repairs of the control device, or change in operations, so that overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.

#### D.1.4 Hazardous Air Pollutants (HAPs) [326 IAC 2-8] [326 IAC 2-7]

Any change or modification that increases the potential to emit any individual HAP to more than 9.98 tons per year or the potential to emit any combination of HAPs to more than 24.9 tons per year from these facilities may cause the source to become subject to 326 IAC 2-7, Part 70, or 326 IAC 2-8,

FESOP, and shall require prior IDEM, OAQ, approval.

**D.1.5 Preventive Maintenance Plan [326 IAC 1-6-3]**

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

**Compliance Determination Requirements**

**D.1.6 Volatile Organic Compounds (VOC) [326 IAC 8-1-2]**

Compliance with the VOC content limit in Condition D.1.1 shall be determined pursuant to 326 IAC 8-1-2(a)(7), using a volume weighted average of coatings on a daily basis. This volume weighted average shall be determined by the following equation:

$$A = [ \sum C \times U ] / \sum U$$

Where: A is the volume weighted average in pounds VOC per gallon less water as applied;  
C is the VOC content of the coating in pounds VOC per gallon less water as applied;  
and U is the usage rate of the coating in gallons per day.

**Record Keeping Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]**

**D.1.7 Record Keeping Requirements**

(a) To document compliance with Condition D.1.1, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC usage limit established in Condition D.1.1.

- (1) The VOC content of each coating material and solvent used less water.
- (2) The amount of coating material and solvent used on a daily basis.
  - (A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
  - (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvent; and
- (3) The volume weighted average VOC content of the coatings used for each day.

(b) To document compliance with Condition D.1.4, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken as stated below and shall be complete and sufficient to establish compliance with the HAP usage limit established in Condition D.1.4.

- (1) The HAP content of each coating material and solvent used.
- (2) The amount of coating material and solvent used on a monthly basis. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used; and
- (3) The individual HAP and total HAP usage for each month.

- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

## SECTION D.2

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

- (c) Sixteen (16) radiant tube heaters, identified as H-01 through H-16, constructed in 1992, exhausting to Stacks H-01 through H-16, heat input capacity: 0.1 million British thermal units per hour, each.
- (d) Three (3) Metal Inert Gas (MIG) welding stations, constructed in 1992, capacity: 0.35 spools of wire per hour, each, and 9.1 pounds of wire per hour, total.
- (e) One (1) Oxyacetylene welding station, constructed in 1992, capacity: 1.65 pounds of metal consumed per hour.
- (f) One (1) plasma cutter, constructed in 1992, capacity: 120 inches of one-eighth inch thick cuts in metal per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

There are no conditions specifically applicable to these facilities.

## SECTION D.3

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

- (g) One (1) woodworking and metal working operation, identified as F-01, constructed in 1992, with a capacity of 200.9 board feet (502.25 pounds) per hour, including:
- (1) three (3) ten inch table saws, equipped with three (3) bag filters;
  - (2) two (2) chop saws; and
  - (3) hand-held saws, grinders and drills.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards

#### D.3.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the one (1) woodworking and metal working operation, identified as F-01, excluding the hand-held saws, grinders and drills, shall not exceed 1.62 pounds per hour, when operating at a process weight rate of 502.25 pounds per hour. The pounds per hour limitation was calculated using the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and

P = process weight rate in tons per hour

### Compliance Determination Requirements

#### D.3.2 Particulate Control

In order to comply with Condition D.3.1, the three (3) bagfilters for particulate control shall be in operation and control emissions from the three (3) ten inch table saws at all times that the table saws are in operation.

**MALFUNCTION REPORT**

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
FAX NUMBER - 317 233-5967**

**This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6  
and to qualify for the exemption under 326 IAC 1-6-4.**

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?\_\_\_\_, 25 TONS/YEAR SULFUR DIOXIDE ?\_\_\_\_, 25 TONS/YEAR NITROGEN OXIDES ?\_\_\_\_, 25 TONS/YEAR VOC ?\_\_\_\_, 25 TONS/YEAR HYDROGEN SULFIDE ?\_\_\_\_, 25 TONS/YEAR TOTAL REDUCED SULFUR ?\_\_\_\_, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?\_\_\_\_, 25 TONS/YEAR FLUORIDES ?\_\_\_\_, 100 TONS/YEAR CARBON MONOXIDE ?\_\_\_\_, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?\_\_\_\_, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?\_\_\_\_, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?\_\_\_\_, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?\_\_\_\_. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION \_\_\_\_\_.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC \_\_\_\_\_ OR, PERMIT CONDITION # \_\_\_\_\_ AND/OR PERMIT LIMIT OF \_\_\_\_\_

THIS INCIDENT MEETS THE DEFINITION OF 'MALFUNCTION' AS LISTED ON REVERSE SIDE ?    Y        N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ?    Y        N

COMPANY: \_\_\_\_\_ PHONE NO. : \_\_\_\_\_  
LOCATION: (CITY AND COUNTY) \_\_\_\_\_  
PERMIT NO. \_\_\_\_\_ AFS PLANT ID: \_\_\_\_\_ AFS POINT ID: \_\_\_\_\_ INSP: \_\_\_\_\_  
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: \_\_\_\_\_

DATE/TIME MALFUNCTION STARTED: \_\_\_\_/\_\_\_\_/20\_\_\_\_    \_\_\_\_\_ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: \_\_\_\_\_

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE \_\_\_\_/\_\_\_\_/20\_\_\_\_    \_\_\_\_\_ AM / PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO<sub>2</sub>, VOC, OTHER: \_\_\_\_\_

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: \_\_\_\_\_

MEASURES TAKEN TO MINIMIZE EMISSIONS: \_\_\_\_\_

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL\* SERVICES: \_\_\_\_\_

CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: \_\_\_\_\_

CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: \_\_\_\_\_

INTERIM CONTROL MEASURES: (IF APPLICABLE) \_\_\_\_\_

MALFUNCTION REPORTED BY: \_\_\_\_\_ TITLE: \_\_\_\_\_

(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

\*SEE PAGE 2

PAGE 1 OF 2

**Please note - This form should only be used to report malfunctions  
applicable to Rule 326 IAC 1-6 and to qualify for  
the exemption under 326 IAC 1-6-4.**

**326 IAC 1-6-1 Applicability of rule**

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

**326 IAC 1-2-39 "Malfunction" definition**

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

\* **Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

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Vintage Trailers, Ltd.  
Elkhart, Indiana  
Permit Reviewer: CAP/MES

Page 26 of 29  
MSOP 039-16783-00575

PAGE 2 OF 2

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE BRANCH**

**MINOR SOURCE OPERATING PERMIT  
ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

<b>Company Name:</b>	<b>Vintage Trailers, Ltd.</b>
<b>Address:</b>	<b>4660 Pine Creek Road</b>
<b>City:</b>	<b>Elkhart</b>
<b>Phone #:</b>	<b>(574) 522-2261</b>
<b>MSOP #:</b>	<b>039-16783-00575</b>

I hereby certify that Vintage Trailers, Ltd. is ☒ still in operation.  
☐ no longer in operation.

I hereby certify that Vintage Trailers, Ltd. is ☒ in compliance with the requirements of MSOP 039-16783-00575.  
☐ not in compliance with the requirements of MSOP 039-16783-00575.

<b>Authorized Individual (typed):</b>
<b>Title:</b>
<b>Signature:</b>
<b>Date:</b>

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

<b>Noncompliance:</b>

Mail to: Permit Administration & Development Section  
Office of Air Quality  
100 North Senate Avenue  
P.O. Box 6015  
Indianapolis, Indiana 46206-6015

Vintage Trailers, Ltd.  
4660 Pine Creek Road  
Elkhart, Indiana 46516

**Affidavit of Construction**

I, \_\_\_\_\_, being duly sworn upon my oath, depose and say:  
(Name of the Authorized Representative)

1. I live in \_\_\_\_\_ County, Indiana and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.
2. I hold the position of \_\_\_\_\_ for \_\_\_\_\_.  
(Title) (Company Name)
3. By virtue of my position with \_\_\_\_\_, I have personal knowledge of the  
(Company Name)  
representations contained in this affidavit and am authorized to make these representations on behalf of  
\_\_\_\_\_.  
(Company Name)
4. I hereby certify that Vintage Trailers, Ltd., 4660 Pine Creek Road, Elkhart, Indiana 46516, completed construction of the one (1) frame coating booth (EU-01) and the increased capacity of the fabrication and final finish operations (EU-02) at the existing custom recreational vehicle trailer manufacturing source on \_\_\_\_\_ in conformity with the requirements and intent of the Construction Permit application received by the Office of Air Quality on November 15, 2002, and as permitted pursuant to **MSOP No. 039-16783, Plant ID No. 039-00575** issued on \_\_\_\_\_.

Further Affiant said not.

I affirm under penalties of perjury that the representations contained in this affidavit are true, to the best of my information and belief.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

STATE OF INDIANA)  
)SS

COUNTY OF \_\_\_\_\_ )

Subscribed and sworn to me, a notary public in and for \_\_\_\_\_ County and State of Indiana  
on this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_.

My Commission expires: \_\_\_\_\_.

---

Signature

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Name (typed or printed)

**March 10, 2003**  
**Indiana Department of Environmental Management**  
**Office of Air Quality**

Addendum to the  
Technical Support Document for New Construction and a  
Minor Source Operating Permit

<b>Source Name:</b>	<b>Vintage Trailers, Ltd.</b>
<b>Source Location:</b>	<b>4660 Pine Creek Road, Elkhart, Indiana 46516</b>
<b>County:</b>	<b>Elkhart</b>
<b>SIC Code:</b>	<b>3792</b>
<b>Operation Permit No.:</b>	<b>MSOP 039-16783-00575</b>
<b>Permit Reviewer:</b>	<b>CarrieAnn Paukowits</b>

On February 3, 2003, the Office of Air Quality (OAQ) had a notice published in the Elkhart Truth, Elkhart, Indiana, stating that Vintage Trailers, Ltd. had applied for a construction and operating permit to construct and operate a custom recreational vehicle trailer manufacturing source with dry filters and bagfilters as air pollution controls. The source is an existing source, but the frame coating booth is being reconstructed resulting in an increase in capacity and potential to emit. The notice also stated that OAQ proposed to issue a permit for this installation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On February 11, 2003, Douglas A. Elliott of D&B Environmental Services, Inc., on behalf of Vintage Trailers, Ltd., submitted comments on the proposed construction and operating permit. The summary of the comments and corresponding responses are as follows (The permit language, if changed, has deleted language as ~~strikeouts~~ and new language **bolded**.):

**Comment 1:**

The 326 IAC 8-2-9 volatile organic compound (VOC) content limit of three and five-tenths (3.5) pounds of VOC per gallon established in Condition D.1.1 applies only to coatings applied to miscellaneous metal substrates. Please revise the draft language contained in Condition D.1.1 as follows:

Pursuant to 326 IAC 8-2-9, the owner or operator shall not allow the discharge into the atmosphere of VOC in excess of three and five-tenths (3.5) pounds of VOC per gallon of coating, excluding water, as delivered to the applicators, for air dried or forced warm air dried coatings applied to metal substrates.

**Response 1:**

Condition D.1.1 is revised as follows:

**D.1.1 Volatile Organic Compounds (VOC) Limitations [326 IAC 8-2-9]**

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Pursuant to 326 IAC 8-2-9, the owner or operator shall not allow the discharge into the atmosphere of VOC in excess of three and five-tenths (3.5) pounds of VOC per gallon of coating, excluding water, as delivered to the applicators, for air dried or forced warm air dried coatings **applied to metal substrates**.

**Comment 2:**

The 326 IAC 8-2-9(f) material handling practice established in Condition D.1.2 applies only to cleanup of coatings applied to miscellaneous metal substrates. Please revise the draft language contained in Condition D.1.2 as follows:

Pursuant to 326 IAC 8-2-9(f), all solvents sprayed from the application equipment of EU-01 and EU-02 during cleanup or color changes of materials applied to metal substrates shall be directed into containers. Said containers shall be closed as soon as the solvent spraying is complete. In addition, all waste solvent shall be disposed of in such a manner that evaporation is minimized.

**Response 2:**

Condition D.1.2 is revised as follows:

**D.1.2 Volatile Organic Compound (VOC) Limitations, Clean-up Requirements [326 IAC 8-2-9]**

Pursuant to 326 IAC 8-2-9 (f), all solvents sprayed from the application equipment of EU-01 and EU-02 during cleanup or color changes **of materials applied to metal substrates** shall be directed into containers. Said containers shall be closed as soon as the solvent spraying is complete. In addition, all waste solvent shall be disposed of in such a manner that minimizes evaporation.

**Comment 3:**

Condition D.1.7(a) requires record keeping on a daily basis to document compliance with the VOC usage limit established in Condition D.1.1 for coatings applied to miscellaneous metal substrates. Condition D.1.1 and the MSOP Technical Support Document establish compliance with 326 IAC 8-2-9 based on material usage limited to compliant coatings. Records of "The amount of coating material and solvent used on a daily basis," "The volume weighted average VOC content of coatings used for each day," "The daily cleanup solvent usage; and," and "The total VOC usage for each day" for regulated coatings is unnecessary for facilities limited to the use of 326 IAC 8-2-9 compliant materials.

Condition D.1.7(a)(2) should be revised to read as follows:

The amount of coating material and solvent used on a monthly basis.

Condition D.1.7(a)(3) should be removed and replaced with a new Condition D.1.7(d). Condition D.1.1(a)(4) should be revised to read as follows:

The monthly cleanup solvent usage: and

Condition D.1.7(a)(5) should be revised to read as follows:

the total VOC usage for each month.

A Condition D.1.7(d) could be added. This condition should read as follows:

To document compliance with Condition D.1.6, the Permittee shall maintain records of the volume weighted average VOC content of coatings used. Records shall be complete and sufficient to establish compliance with the volume weighted average requirements established in Condition D.1.6, and the VOC usage limit established in Condition D.1.1.

**Response 3:**

The information provided in the application shows that some individual coatings may not comply with the VOC content limitation of 326 IAC 8-2-9. Therefore, the coatings applied to metal at this source are limited based on a daily volume weighted average. As indicated in the last paragraph of your comment, a record of the daily volume weighted average VOC content is required. There is no need to move the condition. In order to calculate the daily volume weighted average, the daily amount of coating material and solvent used is required for each coating material and solvent. Therefore, there is no change to Condition D.1.7(a)(2). The total VOC emissions must be supplied annually as required by 326 IAC 2-6 (Condition C.12). However, there is no total VOC usage limit for this source. Therefore, Conditions D.1.7(a)(4) and (5) have been removed from the permit, as follows:

**D.1.7 Record Keeping Requirements**

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- (a) To document compliance with Condition D.1.1, the Permittee shall maintain records in accordance with (1) through ~~(6)~~ **(3)** below. Records maintained for (1) through ~~(6)~~ **(3)** shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC usage limit established in Condition D.1.1.
- (1) The VOC content of each coating material and solvent used less water.
  - (2) The amount of coating material and solvent used on a daily basis.
    - (A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
    - (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvent; **and**
  - (3) The volume weighted average VOC content of the coatings used for each day.
  - ~~(4) The daily cleanup solvent usage; and~~
  - ~~(5) The total VOC usage for each day.~~
- (b) To document compliance with Condition D.1.4, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken as stated below and shall be complete and sufficient to establish compliance with the HAP usage limit established in Condition D.1.4.
- (1) The HAP content of each coating material and solvent used.
  - (2) The amount of coating material and solvent used on a monthly basis. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used; and
  - (3) The individual HAP and total HAP usage for each month.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**March 10, 2003**

**Indiana Department of Environmental Management  
Office of Air Quality**

**Technical Support Document (TSD) for New Source Construction and  
a Minor Source Operating Permit**

**Source Background and Description**

<b>Source Name:</b>	<b>Vintage Trailers, Ltd.</b>
<b>Source Location:</b>	<b>4660 Pine Creek Road, Elkhart, Indiana 46516</b>
<b>County:</b>	<b>Elkhart</b>
<b>SIC Code:</b>	<b>3792</b>
<b>Operation Permit No.:</b>	<b>MSOP 039-16783-00575</b>
<b>Permit Reviewer:</b>	<b>CarrieAnn Paukowits</b>

The Office of Air Quality (OAQ) has reviewed an application from Vintage Trailers, Ltd., relating to the construction and operation of a custom recreational vehicle trailer manufacturing source.

**Permitted Emission Units and Pollution Control Equipment**

There are no permitted facilities operating at this source during this review process.

**Unpermitted Emission Units and Pollution Control Equipment**

The source also consists of the following unpermitted facilities/units:

- (a) One (1) frame coating booth, identified as EU-01, constructed in 1992 and re-constructed in 2003, equipped with an airless spray system and dry filters for particulate control, exhausting to Stacks SV-01 through SV-03, capacity: 0.75 trailer frames per hour.
- (b) One (1) fabrication and final finish operation, identified as EU-02, constructed in 1992, using caulk guns and aerosol cans to apply materials, capacity: 0.75 travel trailers per hour.
- (c) Sixteen (16) radiant tube heaters, identified as H-01 through H-16, constructed in 1992, exhausting to Stacks H-01 through H-16, heat input capacity: 0.1 million British thermal units per hour, each.
- (d) Three (3) Metal Inert Gas (MIG) welding stations, constructed in 1992, capacity: 0.35 spools of wire per hour, each, and 9.1 pounds of wire per hour, total.
- (e) One (1) Oxyacetylene welding station, constructed in 1992, capacity: 1.65 pounds of metal consumed per hour.
- (f) One (1) plasma cutter, constructed in 1992, capacity: 120 inches of one-eighth inch thick cuts

in metal per hour.

- (g) One (1) woodworking and metal working operation, identified as F-01, constructed in 1992, with a capacity of 200.9 board feet (502.25 pounds) per hour, including:
- (1) three (3) ten inch table saws, equipped with three (3) bag filters;
  - (2) two (2) chop saws; and
  - (3) hand-held saws, grinders and drills.

### New Emission Units and Pollution Control Equipment

The application includes information relating to the construction and operation of the following equipment:

The source is proposing to re-construct the one (1) frame coating booth, identified as EU-01, and increase the capacity of that unit and the one (1) fabrication and final finish operation, identified as EU-02, from 0.3 trailer frames per hour to 0.75 trailer frames per hour.

### Existing Approvals

The source has no previous approvals.

### Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (EF)
H-01 through H-16	Infrared Tube Heaters	24.0	0.5	100	200
SV-01	Frame Coating Room	10.0	1.66	2300	Ambient
SV-02	Frame Coating	ground level	1.66	1500	Ambient
SV-03	Frame Coating	ground level	1.66	1500	Ambient

### Enforcement Issue

- (a) IDEM is aware that equipment has been constructed and operated prior to receipt of the proper approval. The subject equipment is listed in this Technical Support Document under the condition entitled *Unpermitted Emission Units and Pollution Control Equipment*.
- (b) IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.
- (c) The source should have submitted an application for an MSOP by December 25, 1999. Therefore, an enforcement referral will be filed.

### Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on November 15, 2002, with additional information received on January 3, 8, 10, 21 and 23, 2003.

## Emission Calculations

See pages 1 through 6 of 6 of Appendix A of this document for detailed emissions calculations.

### Plasma Flame Cutting

Assuming that the cut is 1/8-inch wide, with the stated metal thickness of less than 1.00 inch and a cutting rate of 120 inches per hour results in 15.0 cubic inches per hour cut. Using the density of iron, 0.72255 pounds per cubic inch, 15.0 cubic inches per hour is equal to 10.8 pounds per hour. Assuming that one percent (1%) of the metal cut is converted to fumes, the PM and PM<sub>10</sub> emission rates are 0.108 pound per hour, or 0.475 ton per year.

### Two (2) chop saws (uncontrolled)

According to the information provided by the source the potential particulate emissions from all cutting operations are less than twenty-five (25) pounds per day. To be conservative, the potential emissions from the two (2) chop saws has been determined to be twenty-five (25) pounds per day, equivalent to 4.56 tons per year.

## Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential To Emit (tons/year)
PM	40.0
PM <sub>10</sub>	40.0
SO <sub>2</sub>	0.004
VOC	15.4
CO	0.589
NO <sub>x</sub>	0.701

HAPs	Potential To Emit (tons/year)
Xylene	7.44
Toluene	0.977
Ethyl benzene	1.66
Glycol Ethers	1.12
Benzene	negligible
Dichlorobenzene	negligible
Formaldehyde	0.001
Hexane	0.013
Lead	negligible
Cadmium	negligible
Chromium	negligible
Manganese	0.001
Nickel	negligible
TOTAL	11.2

- (a) The potentials to emit (as defined in 326 IAC 2-1.1-1(16)) of PM and PM<sub>10</sub> are equal to or greater than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1.
- (b) Fugitive Emissions  
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

#### Actual Emissions

No previous emission data has been received from the source.

#### Limited Potential to Emit

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units.

	<b>Limited Potential to Emit</b> (tons/year)						
Process/facility	PM	PM <sub>10</sub>	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
Frame Coating Booth (EU-01)	3.09	3.09	-	10.9	-	-	7.11 individual 9.73 total
Fabrication and final finish operations (EU-02)	0.081	0.081	-	4.55	-	-	0.977 individual 1.47 total
Radiant tube heaters, identified as H-01 through H-16	0.013	0.053	0.004	0.039	0.589	0.701	0.013 individual 0.013 total
Welding and plasma cutting	0.714	0.714	-	-	-	-	0.001 individual 0.001 total
Wood working and metal working	7.10	7.10	-	-	-	-	-
Total Emissions	11.0	11.0	0.004	15.5	0.589	0.701	7.44 individual 11.2 total

The potential to emit each pollutant is equal to the unrestricted potential emissions, except for particulate. The hourly particulate emissions from the woodworking and metal working are limited by 326 IAC 6-3, Particulate Emission Limitations for Manufacturing Processes. The PM and PM<sub>10</sub> values in this table is the maximum annual potential to emit based on operating at the limited hourly rate 8,760 hours per year.

#### County Attainment Status

The source is located in Elkhart County.

Pollutant	Status
PM <sub>10</sub>	attainment
SO <sub>2</sub>	attainment
NO <sub>2</sub>	attainment
Ozone	maintenance attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Elkhart County has been designated as maintenance attainment for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Elkhart County has been classified as attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

### Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	9.06
PM <sub>10</sub>	9.10
SO <sub>2</sub>	0.004
VOC	6.22
CO	0.589
NO <sub>x</sub>	0.701

- (a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories.
- (b) These emissions were based on the total potential to emit (after limitations) of this source, prior to the increase in the capacity from 0.3 trailer frames per hour to 0.75 trailer frames per hour. Thus, the emissions from the coating operations are calculated by taking forty percent (40%) of the total potential to emit calculated for this permit.

### Proposed Modification

PTE from the proposed modification (based on 8,760 hours of operation per year at rated capacity including enforceable emission control and production limit, where applicable):

Pollutant	PM (ton/yr)	PM <sub>10</sub> (ton/yr)	SO <sub>2</sub> (ton/yr)	VOC (ton/yr)	CO (ton/yr)	NO <sub>x</sub> (ton/yr)
Proposed Modification	3.17	3.17	-	15.4	-	-
PSD or Offset Threshold Level	250	250	250	250	250	250

This modification to an existing minor stationary source is not major because the emission increase is less than the PSD threshold levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

### **Part 70 Permit Determination**

#### **326 IAC 2-7 (Part 70 Permit Program)**

This existing source based on the emissions summarized in this permit, MSOP 039-16783-00575, is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than one hundred (100) tons per year,
- (b) a single hazardous air pollutant (HAP) is less than ten (10) tons per year, and
- (c) any combination of HAPs is less than twenty-five (25) tons per year.

This is the first air approval issued to this source.

### **Federal Rule Applicability**

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14, 326 IAC 20, 40 CFR 61 and 40 CFR Part 63) applicable to this source.
- (c) The requirements of Section 112(j) of the Clean Air Act (40 CFR Part 63.50 through 63.56) are not applicable to this source because the source is not a major source of hazardous air pollutant (HAP) emissions (i.e., the source does not have the potential to emit 10 tons per year or greater of a single HAP or 25 tons per year or greater of a combination of HAPs).

### **State Rule Applicability - Entire Source**

#### **326 IAC 2-6 (Emission Reporting)**

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than ten (10) tons per year of VOC in Elkhart County. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

#### **326 IAC 5-1 (Opacity Limitations)**

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15)

minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

### **State Rule Applicability - Individual Facilities**

#### **326 IAC 8-2-9 (Miscellaneous Metal Coating)**

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating delivered to the applicators at the one (1) frame coating booth (EU-01) and one (1) fabrication and final finish operation (EU-02) shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for air dried coatings.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

Based on the MSDS submitted by the source and calculations made, the one (1) frame coating booth (EU-01) and one (1) fabrication and final finish operation (EU-02) are in compliance with this requirement. This limitation will be calculated based on a daily volume-weighted average.

#### **326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)**

- (a) Particulate from the one (1) frame coating booth (EU-01) shall be controlled by a dry particulate filter, waterwash, or an equivalent control device, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

If overspray is visibly detected at the exhaust or accumulates on the ground, the Permittee shall inspect the control device and do either of the following no later than four (4) hours after such observation:

- (1) Repair control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground.
- (2) Operate equipment so that no overspray is visibly detectable at the exhaust or accumulates on the ground.

If overspray is visibly detected, the Permittee shall maintain a record of the action taken as a result of the inspection, any repairs of the control device, or change in operations, so that overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.

- (b) The one (1) fabrication and final finish operation (EU-02) uses caulking, which is a form of flow coating, to apply products, and aerosol coating products to repair minor surface damage and imperfections. Therefore, pursuant to 6-3-1(b)(7) and (12), this facility is exempt from the requirements of 326 IAC 6-3, Particulate Emission Limitations for Manufacturing Processes.
- (c) The welding operations at this source consume less than six hundred and twenty-five (625) pounds of weld wire or rod per day. Therefore, pursuant to 326 IAC 6-3-1(b)(9), the welding operations are exempt from the requirements of 326 IAC 6-3, Particulate Emission Limitations for Manufacturing Processes.
- (d) The flame cutting operation at this source cuts less than three thousand four hundred (3,400) inches per hour of stock one (1) inch thickness or less. Therefore, pursuant to 326 IAC 6-3-1(b)(10), the flame cutting operation is exempt from the requirements of 326 IAC 6-3, Particulate

Emission Limitations for Manufacturing Processes.

- (e) The hand-held saws, grinders and drills are trivial based on the definition in 326 IAC 2-7-1(40)(F)(v), (vi) and (xi). Therefore, pursuant to 326 IAC 6-3-1(b)(13), the hand-held saws, grinders and drills are exempt from the requirements of 326 IAC 6-3, Particulate Emission Limitations for Manufacturing Processes.
- (f) The particulate emissions from the one (1) woodworking and metal working operation, identified as F-01, excluding the hand-held saws, grinders and drills, shall be limited to 1.62 pounds per hour, when operating at a process weight rate of 502.25 pounds per hour. The potential to emit particulate from the three (3) controlled table saws are 7.20 pounds per hour before controls and 0.144 pound per hour after controls. According to information provided by the applicant, the emissions from the uncontrolled chop saws are less than 1.04 pounds per hour. Therefore, the one (1) woodworking and metal working operation, identified as F-01, will comply with this rule. The three (3) bagfilters must be in operation and control emissions from the saws exhausting to the bagfilter at all times when the saws are in operation. The limitation is based upon the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where} \quad \begin{array}{l} E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour} \end{array}$$

**Conclusion**

The construction and operation of this custom recreational vehicle trailer manufacturing source shall be subject to the conditions of the attached proposed New Source Construction and Minor Source Operating Permit 039-16783-00575.

**Appendix A: Emissions Calculations  
VOC and Particulate  
From Surface Coating Operations**

**Company Vintage Trailers, Ltd.  
Address 4660 Pine Creek Road, Elkhart, Indiana 46516  
MSOP: 039-16783  
Pit ID: 039-00575  
Reviewer: CarrieAnn Paukowits  
Date: November 15, 2002**

Material	Density (lbs/gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (units/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC (pounds per hour)	Potential VOC (pounds per day)	Potential VOC (tons per year)	Particulate Potential (tons/yr)	lbs VOC/gal solids	Transfer Efficiency
<b>Frame Coating (EU-01)</b>																
PPG 9457 (supplied as 9467)	8.29	29.0%	0.00%	29.0%	0.00%	33.0%	1.375	0.750	2.40	2.40	2.48	59.50	10.86	3.09	7.29	75.0%

PM Control Efficiency 90.0%

<b>Potential to Emit</b>	<b>Add worst case coating to all solvents</b>	<b>Uncontrolled</b>	<b>2.48</b>	<b>59.5</b>	<b>10.9</b>	<b>3.09</b>
		<b>Controlled</b>	<b>2.48</b>	<b>59.5</b>	<b>10.9</b>	<b>0.309</b>

Material	Density (lbs/gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (units/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC (pounds per hour)	Potential VOC (pounds per day)	Potential VOC (tons per year)	Particulate Potential (tons/yr)	lbs VOC/gal solids	Transfer Efficiency
<b>Fabrication and Final Finish</b>																
502 Caulk	8.51	5.00%	0.00%	5.00%	0.00%	95.0%	1.04	0.750	0.426	0.43	0.332	7.97	1.45	0.0	0.45	*****
Rust-oleum 1679	9.01	95.0%	0.00%	95.0%	0.00%	5.00%	0.110	0.750	8.56	8.56	0.706	16.95	3.09	0.0814	171.19	50.0%

PM Control Efficiency 0.0%

<b>Potential to Emit</b>	<b>Add worst case coating to all solvents</b>	<b>Uncontrolled</b>	<b>1.04</b>	<b>24.9</b>	<b>4.55</b>	<b>0.081</b>
		<b>Controlled</b>	<b>1.04</b>	<b>24.9</b>	<b>4.55</b>	<b>0.081</b>

<b>Overall Total</b>	Controlled	<b>3.52</b>	<b>84.4</b>	<b>15.4</b>	<b>3.17</b>
	Uncontrolled	<b>3.52</b>	<b>84.4</b>	<b>15.4</b>	<b>0.390</b>

**METHODOLOGY**

PPG 9457 also contains 38% acetone, which is not a VOC and not particulate.

Pounds of VOC per Gallon Coating less Water = (Density (lbs/gal) \* Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lbs/gal) \* Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lbs/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lbs/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lbs/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (8760 hr/yr) \* (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) \* (gal/unit) \* (lbs/gal) \* (1- Weight % Volatiles) \* (1-Transfer efficiency) \*(8760 hrs/yr) \*(1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) \* Weight % organics) / (Volume % solids)

Total = Worst Coating + Sum of all solvents used

**Appendix A: Emission Calculations**  
**HAP Emission Calculations**

**Compa** Vintage Trailers, Ltd.  
**Address** 4660 Pine Creek Road, Elkhart, Indiana 46516  
**MSOP:** 039-16783  
**Plt ID:** 039-00575  
**Review** CarrieAnn Paukowits  
**Date:** November 15, 2002

Material	Density (lbs/gal)	Gallons of Material (gal/unit)	Maximu (unit/hr)	Weight % Xylene	Weight % Toluene	Weight % Ethyl Benz	Weight % Glycol Ethers	Xylene Emissions	Toluene Emissions	Ethyl Benze Emissions	Glycol Ethers Emissions
<b>Frame Coating (EU-01)</b>								(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)
PPG 9457 (supplied as 9467)	8.29	1.375	0.750	19.0%	0.00%	4.00%	3.00%	7.11	0.00	1.50	1.12
<b>Fabrication and Final Finish (</b>											
502 Caulk	8.51	1.04	0.750	0.0%	0.0%	0.0%	0.0%	0.000	0.000	0.000	0.000
Rust-oleum 1679	9.01	0.110	0.750	10.0%	30.0%	5.00%	0.00%	0.326	0.977	0.163	0.000
								<b>7.44</b>	<b>0.977</b>	<b>1.66</b>	<b>1.12</b>
									<b>Overall Tot</b>		<b>11.2</b>

**METHODOLOGY**

HAPS emission rate (tons/yr) = Density (lbs/gal) \* Gal of Material (gal/unit) \* Maximum (unit/hr) \* Weight % HAP \* 8760 hrs/yr \* 1 ton/2000 lbs

Compar Vintage Trailers, Ltd.  
 Address: 4660 Pine Creek Road, Elkhart, Indiana 46516  
 MSOP: 039-16783  
 Plt ID: 039-00575  
 Reviewer: CarrieAnn Paukowits  
 Date: November 15, 2002

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)		EMISSION FACTORS * (lb pollutant / lb electrode)				EMISSIONS (lb/hr)				TOTAL HAPS (lb/hr)
				PM = PM <sub>10</sub>	Mn	Ni	Cr	PM = PM <sub>10</sub>	Mn	Ni	Cr	
WELDING												
Metal Inert Gas (MIG)(ER)	3.00	3.03		0.005	3E-05	*****	*****	0.046	0.0003	*****	*****	0.0003
Oxyacetylene(carbon steel)	1.00	1.65		0.00550				0.009	0.0000	0.0000	0.0000	0.0000
FLAME CUTTING	Number of Stations	Max. Metal Thickness Cut (in.)	Max. Metal Cutting Rate (in./minute)	EMISSION FACTORS (lb pollutant/1,000 inches cut, 1" thick)				EMISSIONS (lbs/hr)				TOTAL HAPS (lb/hr)
				PM = PM <sub>10</sub>	Mn	Ni	Cr	PM = PM <sub>10</sub>	Mn	Ni	Cr	
Plasma	1.00	0.125	2.00		See TSD				See TSD			
EMISSION TOTALS								PM = PM <sub>10</sub>	Mn	Ni	Cr	Total HAPs
Potential Emissions lbs/hr								0.055	0.000	0.000	0.000	0.0003
Potential Emissions lbs/day								1.31	0.007	0.000	0.000	0.008
Potential Emissions tons/yr								0.239	0.001	0.000	0.000	0.001

#### METHODOLOGY

\*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column. Consult AP-42 or other reference for different electrode types.

Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)

Cutting emissions, lb/hr: (# of stations)(max. metal thickness, in.)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 1" thick)

Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day

Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/day x 1 ton/2,000 lbs.

Plasma cutting emission factors are from the American Welding Society study published in Sweden (March 1994).

Welding and other flame cutting emission factors are from an internal training session document.  
See AP-42, Chapter 12.19 for additional emission factors for welding.

**Appendix A: Emissions Calculations      Page 4 of 6 TSD App A**  
**Natural Gas Combustion Only**  
**MM BTU/HR <100**

**Company Vintage Trailers Ltd.**  
**Address ( 4660 Pine Creek Road, Elkhart, Indiana 46516**  
**MSOP: 039-16783**  
**Plt ID: 039-00575**  
**Reviewer: CarrieAnn Paukowits**  
**Date: November 15, 2002**

Sixteen (16) radiant tube heaters rated at 0.1 MMBtu/hr, each.

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

1.60

14.0

Pollutant						
Emission Factor in lb/MMCF	PM*	PM10*	SO2	NOx	VOC	CO
	1.90	7.60	0.600	100 **see below	5.50	84.0
Potential Emission in tons/yr	0.013	0.053	0.004	0.701	0.039	0.589

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

### Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 5 for HAPs emissions calculations.

**Appendix A: Emissions Calculations    Page 5 of 6 TSD App A**  
**Natural Gas Combustion Only**  
**MM BTU/HR <100**  
**HAPs Emissions**

**Company Vintage Trailers Ltd.**  
**Address ( 4660 Pine Creek Road, Elkhart, Indiana 46516**  
**MSOP: 039-16783**  
**Plt ID: 039-00575**  
**Reviewer: CarrieAnn Paukowits**  
**Date: November 15, 2002**

HAPs - Organics

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	1.47E-05	8.41E-06	5.26E-04	1.26E-02	2.38E-05

HAPs - Metals

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03	Total HAPs
Potential Emission in tons/yr	3.50E-06	7.71E-06	9.81E-06	2.66E-06	1.47E-05	0.013

Methodology is the same as page 4.

The five highest organic and metal HAPs emission factors are provided above.  
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emission Calculations  
Baghouse Operations**

**Page 6 of 6 TSD App A**

**Company Name:** Vintage Trailers, Ltd.  
**Address City IN Zip:** 4660 Pine Creek Road, Elkhart, Indiana 46516  
**MSOP:** 039-16783  
**Plt ID:** 039-00575  
**Reviewer:** CarrieAnn Paukowits  
**Date:** November 15, 2002

Unit ID	Control Efficiency (%)	Grain Loading per Actual Cubic foot of Outlet Air (grains/cub. ft.)	Gas or Air Flow Rate (acfm.)	Emission Rate before Controls (lb/hr)	Emission Rate before Controls (tons/yr)	Emission Rate after Controls (lb/hr)	Emission Rate after Controls (tons/yr)
Dayton Bagfilter	98.0%	0.03	130	1.67	7.32	0.03	0.15
ENCO Bagfilter	98.0%	0.03	130	1.67	7.32	0.03	0.15
King Bagfilter	98.0%	0.03	300	3.86	16.89	0.08	0.34
				<b>7.20</b>	<b>31.5</b>	<b>0.144</b>	<b>0.631</b>

**Methodology**

Emission Rate in lbs/hr (after controls) = (grains/cub. ft.) (sq. ft.) ((cub. ft./min.)/sq. ft.) (60 min/hr) (lb/7000 grains)

Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)

Emission Rate in lbs/hr (before controls) = Emission Rate (after controls): (lbs/hr)/(1-control efficiency)

Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)